What Is Claimed Is:

1. A measurement device for simultaneously measuring the position of multiple locations on a target comprising:

a light source for producing a light beam;

optics for configuring the light beam as first and second differentiable beam portions, and for directing the first and second beam portions toward a target to be measured; and

a detection component positioned to intercept first and second images created by simultaneous incidence of the first and second beam portions at first and second locations, respectively, on the target, and to provide output information representative of the position of the target at the first and second locations.

2. The measurement device of claim 1, wherein the detection component comprises first and second detectors positioned to intercept the first and second images, respectively.

3. The measurement device of claim 2, wherein the first and second detectors comprise position sensitive detectors for providing an output signal representative of the position of the first and second beam images.

4. The measurement device of claim 2, wherein the optics include a polarizer for causing the first and second differentiable beam portions to have first and second different polarizations and create differently polarized first and second images on the target, respectively, and wherein first and second detector optical paths are polarization sensitive with the first detector optical path capable of passing the polarized first image created by the polarized first beam portion on to the first detector and the second detector optical path capable of passing the polarized second image created by the polarized second beam portion on to the second detector.

5. The measurement device of claim 4, wherein the detection component further comprises an imaging lens for focusing the differently polarized

first and second images created by the first and second polarized beam portions, the imaging lens interposed between the target and the first and second detectors.

6. The measurement device of claim 5, wherein the detection component further comprises a partial reflector positioned to intercept the differently polarized first and second images, the partial reflector reflecting and directing at least part of one of the differently polarized first and second images toward one of the first and second detectors.

7. The measurement device of claim 6, wherein the partial reflector reflects and directs one of the differently polarized first and second images and passes the other.

8. The measurement device of claim 6, wherein the partial reflector comprises a beam splitter that splits the differently polarized first and second images, such that one part of each of the differently polarized first and second images is reflected resulting in differently polarized first and second reflected images, respectively, and another part of each of the differently polarized first and second images is passed through the beam splitter, resulting in differently polarized first and second passed images, respectively, and wherein one of the first and second detectors intercepts the differently polarized first and second reflected images and the other one of the first and second detectors intercepts the differently polarized first and second passed images.

9. The measurement device of claim 8, wherein the detection component further comprises first and second polarization analyzers interposed between the beam splitter and corresponding first and second detectors, respectively, one of the first and second analyzers intercepting and filtering the differently polarized first and second reflected images to provide a first purified polarized image to the corresponding one of the first and second detectors, and the other one of the first and second analyzers intercepting and filtering the differently polarized first and second

passed images to provide a second purified polarized image having a different polarization that the first purified polarized image to the corresponding other one of the first and second detectors.

10. The measurement device of claim 5, wherein the imaging lens comprises a plurality of imaging lenses configured to cooperate as a lens set.

11. The measurement device of claim 2, wherein the first and second detectors communicate with a microprocessor that calculates position data for the first and second locations on the target.

12. The measurement device of claim 1, wherein the optics comprise a projection lens for focusing the light beam toward the target.

13. The measurement device of claim 12, wherein the optics further comprise a beam splitting device that splits the focused light beam into first and second differentiable portions.

14. The measurement device of claim 13, wherein the optics include a polarizer and wherein the first and second differentiable portions of the laser beam are polarized differently from one another.

15. The measurement device of claim 14, wherein the optics further include a beam directing device that directs the first and second differentiable portions in a desired direction.

16. The measurement device of claim 15, wherein the beam splitting device comprises the beam directing device and directs both first and second differentiable portions in substantially parallel paths toward the target.

17. The measurement device of claim 16, wherein the beam splitting device comprises a polarized beam splitting component and a reflecting component.

18. The measurement device of claim 17, wherein the beam splitting device comprises a polarizing beam splitter that splits the light beam into first and second polarized beam portions and directs the second beam portion toward the target, a quarter wave plate that rotates at least the first beam portion, and a movable mirror that reflects the rotated first beam portion back through the quarter wave plate and toward the target parallel to the second beam portion, the quarter wave plate again rotating the previously rotated first beam portion such that the rotated first beam portion is 90 degrees out of phase with the second beam portion.

19. The measurement device of claim 18, wherein the detection component further comprises:

first and second polarization sensitive detectors positioned to intercept the first and second images, respectively;

an imaging lens for focusing the differently polarized first and second images created by the first and second polarized beam portions, the imaging lens interposed between the target and the first and second detectors;

a partial reflector interposed between the imaging lens and the first and second detectors and positioned to intercept the differently polarized focused first and second images, the partial reflector including a beam splitter that splits the differently polarized first and second images, such that one part of each of the differently polarized first and second images is reflected resulting in differently polarized first and second reflected images, respectively, and another part of each of the differently polarized first and second images is passed through the beam splitter, resulting in differently polarized first and second passed images, respectively; and

first and second polarization analyzers interposed between the beam splitter and first and second detectors, respectively, the first analyzer intercepting and filtering the differently polarized first and second reflected images to provide a first purified polarized image to the first detectors, and the second analyzer intercepting and filtering the differently polarized first and second passed images to provide a second

purified polarized image having a different polarization that the first purified polarized image to the second detectors.

20. The measurement device of claim 18, wherein the movable mirror is adjustable to space the first and second locations on the target relative to each other.

21. The measurement device of claim 15, wherein the beam splitting device comprises a Wollaston prism and wherein the beam directing device comprises first and second movable mirrors.

22. The measurement device of claim 21, wherein the beam directing device further comprises a reflecting cube interposed between the first and second movable mirrors and the target, wherein the first and second beam portions are reflected by the first and second movable mirrors, respectively, toward the reflecting cube, and wherein the reflecting cube directs the first and second beam portions in parallel toward the target.

23. The measurement device of claim 22, wherein the first and second movable mirrors are both adjustable to space the first and second locations on the target relative to each other.

24. The measurement device of claim 23, wherein the detection component further comprises:

first and second polarization sensitive detectors positioned to intercept the first and second images, respectively;

an imaging lens for focusing the differently polarized first and second images created by the first and second polarized beam portions, the imaging lens interposed between the target and the first and second detectors;

a partial reflector interposed between the imaging lens and the first and second detectors and positioned to intercept the differently polarized focused first and second images, the partial reflector including a beam splitter that splits the

differently polarized first and second images, such that one part of each of the differently polarized first and second images is reflected resulting in differently polarized first and second reflected images, respectively, and another part of each of the differently polarized first and second images is passed through the beam splitter, resulting in differently polarized first and second passed images, respectively; and

first and second polarization analyzers interposed between the beam splitter and first and second detectors, respectively, the first analyzer intercepting and filtering the differently polarized first and second reflected images to provide a first purified polarized image to the first detector, and the second analyzer intercepting and filtering the differently polarized first and second passed images to provide a second purified polarized image having a different polarization that the first purified polarized image to the second detector.

25. The measurement device of claim 24, wherein the optics further comprise a mirror movement mechanism for moving the movable mirrors.

26. The measurement device of claim 25, wherein the detection component further comprises a detector movement mechanism for moving the first and second detectors.

27. The measurement device of claim 26, wherein the mirror movement mechanism is coupled to the detector movement mechanism such that movement of the movable mirrors to alter spacing of the point on the target results in movement of the detectors for interception of the first and second images.

28. The measurement device of claim 27, wherein the detector movement mechanism comprises a pivotally mounted T-bar linkage that is pivotally coupled to the mirror movement mechanism, movement of the mirror movement mechanism resulting in direct movement of the first and second detectors, each at an angle relative to the movement of the mirror movement mechanism.

29. The measurement device of claim 28, wherein the angle comprises 45 degrees.

30. The measurement device of claim 27, wherein the detector movement mechanism comprises a cam action mechanism coupled to the mirror movement mechanism, movement of the mirror movement mechanism resulting in direct movement of the first and second detectors, each at an angle relative to the movement of the mirror movement mechanism.

31. The measurement device of claim 30, wherein the angle comprises 45 degrees.

32. A method of measuring a z-height distance at two locations on a disk drive head suspension comprising the steps of:

providing a light beam;

splitting the light beam into first and second differentiable beam portions;

directing the first and second differentiable beam portions toward the two locations to be measured on the head suspension;

intercepting first and second images created by simultaneous incidence of the first and second differentiable beam portions on the target with a detection component; and

analyzing positional data collected by the detection component upon interception of the first and second images to calculate a desired z-height distance measurement for the two locations on the head suspension.

33. The method of claim 32, further comprising the steps of:

focusing the light beam after the step of splitting; and

focusing the first and second images prior to the step of interception.

34. The method of claim 32, wherein the step of intercepting further includes detecting the positions of the first and second images with the detection component.

35. The method of claim 34, wherein the detection component comprises position sensitive detectors, and wherein the step of detecting includes providing an output signal from the position sensitive detectors representative of the position of the first and second images.

36. The method of claim 32, wherein the step of splitting includes passing the light beam through beam splitting optics to create the first and second differentiable beam portions.

37. The method of claim 36, wherein the beam splitting optics include a polarizer, and wherein the step of splitting includes splitting the light beam into first and second beam portions having first and second different polarizations, respectively.

38. The method of claim 36, wherein the beam splitting optics includes a beam directing device, and wherein the step of directing comprises interacting the first and second beam portions with the beam directing device to direct the first and second beam portions toward the head suspension.

39. The method of claim 38, wherein the beam directing device comprises a movable mirror, and wherein the step of directing comprises reflecting at least one of the first and second beam portions off the movable mirror toward the head suspension.

40. The method of claim 39, further comprising the step of adjusting the two locations on the head suspension by moving the movable mirror.

41. The method of claim 38, wherein the beam splitting optics comprises a Wollaston prism and the beam directing device comprises two movable mirrors, and wherein the step of splitting includes passing the light beam through the Wollaston prism to create first and second differently polarized beam portions that are then, in the step of directing, reflected off the two movable mirrors.

42. The method of claim 41, wherein the beam directing device further comprises a reflecting cube interposed between the two movable mirrors and the head suspension, and wherein the step of directing further includes passing the first and second polarized beam portions reflected by the two movable mirrors through the reflecting cube creating first and second parallel polarized beam portions directed toward the head suspension.

43. The method of claim 42, further comprising the step of adjusting the two locations on the head suspension by moving at least one of the two movable mirrors.

44. The method of claim 42, further comprising the step of adjusting the two locations on the head suspension by moving both of the movable mirrors.

45. The method of claim 44, further comprising the step of adjusting the position of the detection component relative to movement of the movable mirrors so as to maintain focus of the first and second images intercepted by the detection component.

46. The method of claim 45, wherein the step of adjusting further comprises coupling the positional movement of the detection component directly to movement of the movable mirrors to achieve automatic adjustment of the position of the detection component upon movement of the movable mirrors.

47. A method of measuring a distance from a target comprising the steps of:

providing a light beam;

splitting the light beam into a plurality of differentiable beam portions;

directing the plurality of differentiable beam portions toward a target to be measured;

detecting images created by simultaneous incidence of the plurality of differentiable beam portions on the target; and

analyzing the detected images to calculate a desired distance measurement from the target.